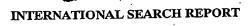


## INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP03/15509 -

A.	CLASS Int.	EFFICATION OF SUBJECT MATTER C17 C21B13/10, 11/00, 11/10		
Αœ	ording t	o International Patent Classification (IPC) or to both na	ational classification and IPC	
В.	FIELD	SSEARCHED		
Min	imum d	ocumentation searched (classification system followed	by classification symbols)	
	Int.	C1 <sup>7</sup> C21B13/10, 11/00, 11/10		
Doc	umentat	ion searched other than minimum documentation to the	extent that such documents are included	in the fields searched
	Jitsu	nyo Shinan Koho 1922-1996 Jitsuyo Shinan Koho 1971-2004	Toroku Jitsuyo Shinan Koho	1994-2004
Elec	tronic d	ata base consulted during the international search (nam	e of data base and, where practicable, sear	ch terms used)
c.	DOCU	MENTS CONSIDERED TO BE RELEVANT		
Cate	egory*	Citation of document, with indication, where ap	propriate, of the relevant passages	Relevant to claim No.
	х	JP 2002-146444 A (Kobe Steel	, Ltd.),	1
	Y	22 May, 2002 (22.05.02), Claims; examples 1 to 3 (Family: none)		2-5
•	Y	US 2001/0037703 A1 (Kobe Ste 08 November, 2001 (08.11.01), Claims; Par. Nos. [0062] to 6 JP 2001-294921 A		2-4 .
	Y	EP 0747491 A1 (ARMCO INC.), 11 December, 1996 (11.12.96), Claims; page 5, line 59 to pa examples 1 to 4 & JP 8-337827 A	age 6, line 11;	2-4
•			·	
×	Furthe	r documents are listed in the continuation of Box C.	See patent family annex.	
* Special categories of cited documents:  "A" document defining the general state of the art which is not considered to be of particular relevance  "E" carlier document but published on or after the international filing date  "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)  "O" document referring to an oral disclosure, use, exhibition or other means  "P" document published prior to the international filing date but later than the priority date claimed  Date of the actual completion of the international search			later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art document member of the same patent family	
Nam		arch, 2004 (03.03.04)	16 March, 2004 (16.	U3.U4)
HAIN	Japai	nese Patent Office	, idinoriada dinodi	
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Facsimile No.			Telephone No.	

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International application No.
PCT/JP03/15509

ategory*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 7-34144 A (NKK Corp.), 03 February, 1995 (03.02.95), Claims; Par. Nos. [0004] to [0009] (Family: none)	5
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